

Work Order ID 85938

June-19-12 7:59:05 AM

85938

Page 1

Item ID: D350-636-012

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Skidtube RH

Stop

NS2

Start Date: 19/06/2012 Start Qty: 1.00 *1*

Cust Item ID:

Required Date: 03/07/2012 Req'd Qty: 1.00 *1*

Customer:

Reference:

Approvals: Process Plan: MLJ

Date: 12/06/19 Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
----------	--------------

D2750

F

0.00

DAS

D3492

C

AS

0.00

16
9-89

17/4/27

100

100

DOCUMENT CONTROL

DC

Memo

Document Control

Photocopy blue file and type labels per PPP D350-636-012 CHG 006

MLJ 12-7-26

85938

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	*NR1*
	QC:	Date:	SPC (Y/N):	Date:		Stop	*NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
110		0.00							
110	Skidtubes								
Skidtubes	Memo	0.00							
Skidtubes	1- Pick D2600-3 Bent								
	2- Deburr FWD and AFT ends, remove bending marks. Scribe batch# inside AFT end per dwg D2750								
	3- Drill pilot holes for blade fitting bolt holes using DT8983. Open to 0.500", deburr.								
	4- Locate DT8329 off of blade fitting bolt holes and drill pilot holes for blade fitting								
	5- Drill only two fwd step holes using DT9616. Ensure proper positioning.								
	6- Drill pilot holes as per Dwg D2750 sheet 4 (D2750-2 details).Drill using drill Jig DT8150 & DT8863A for first side only DT8863B for second side (detail K)								
	7- Clecko DT8863B on second side of tube and drill pilot holes for detail B. ***SECOND SIDE***								
	8-Open up holes for Detail "K" to 0.375" (4 holes per side)and blade fitting location holes to 0.500" (total of 4 holes per side) as per dwg D2750 .Open up holes for ground handling and detail L to 0.500" (8 holes per side)								
	9-Drill pilot holes for wearplates as per Dwg D2750 using DT8108 open to 0.297".								
	10-Open up holes of Detail A to 0.297" (total of 2 holes per side)								

AB 12/07/11

W/O:		WORK ORDER CHANGES						
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Required Date: 03/07/2012 Req'd Qty: 1.00 *1*

Reference:

Approvals:	Process Plan:	Date:	Tooling:	Date:
	QC:	Date:	SPC (Y/N):	Date:

Sequence ID/ Work Center ID	Operation Description
--------------------------------	--------------------------

11-Weld D2744 Cap as per Dwg D2750 and QSI 004. Fill grooves in bend left
from bending as per QSI 004
A/R Aluminum Rod batch: M12230

12-Grind welds flush as per Dwg D2750

120 QC10- Inspect visual per QSI004- ground welds

120

QC

Quality Control

Memo

130 QC5- Inspect part completeness to step on W/O

130

QC

Quality Control

Memo

85938

Accept

N900040100

Setup

Start

NS1

Stop

NS2

Cust Item ID:

Customer:

Run

Start

NR1

Stop

NR2

Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp

11-Weld D2744 Cap as per Dwg D2750 and QSI 004. Fill grooves in bend left from bending as per QSI 004 A/R Aluminum Rod batch: <u>M12230</u>	BE 12/07/17
12-Grind welds flush as per Dwg D2750	<u>BB</u> 12/07/17

120 QC10- Inspect visual per QSI004- ground welds	0.00	DAS 16 9-89	12/07/17

130 QC5- Inspect part completeness to step on W/O	0.00	DAS 16 9-89	12/07/17

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Reference:

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	*NR1*
	QC:	Date:	SPC (Y/N):	Date:		Stop	*NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140	Chemical Conversion Coat per QSI005 4.1	0.00							

140

HandFinish

Hand Finishing

1 76 12-7-18

150

QC7-Inspect Chemical Conversion Coat 0.00

03

150

QC

Quality Control

D 12-7-18

W/O:		WORK ORDER CHANGES					
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Customer:

Reference:

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	*NR1*
						Stop	*NR2*
	QC:	Date:	SPC (Y/N):	Date:			

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160		0.00							

160

Skidtubes

Skidtubes

Memo

0.00

1-Open up holes of Detail L and ground handling to 0.625" (total of 8 holes per side) as per dwg D2750.

2-Open up holes of Detail K to 0.750" (total of 4 holes per side) as per dwg D2750.

3-Open float holes to .500" (4 per Side)

4-Chamfer holes of Detail K, L, ground handling and float holes per dwg D2750 (welding instructions on sheet 9)

5-Deburr and blow out all chips from inside of tube

6-Prepare tube for welding, remove alodine as required.

7-Bond web D2739 in place as per QSI 015

A/R Sikaflex-291 batch: 122130exp. date: 13-3-14*- De 12/07/18*

8- Weld spacers D3490-1, D3490-3 and D2743 as per dwg D2750 & QSI004 (welding instructions on sheet 9)

A/R Aluminum Rod batch: 122130

9- At section AP-AP drill out x-bolt spacer to 0.404"

38E 12/07/13

10-Grind welds flush as per Dwg D2750

SAD 12-07-13

11-Spot face ground handling holes section (total of 4 places per side) as per

*BB**12/07/13*

W/O:		WORK ORDER CHANGES					
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Reference:

Approvals:	Process Plan:	Date:	Tooling:	Date:	Run	Start	*NR1*
						Stop	*NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
	dwg D2750 12-Deburr holes								BB 12/07/23

170

170

QC

Quality Control

QC10- Inspect visual per QSI004- ground welds

0.00



180

180

QC

Quality Control

QC5- Inspect part completeness to step on W/O

0.00



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Revision ID:

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Start Date: 19/06/2012 Start Qty: 1.00 ***1***Required Date: 03/07/2012 Req'd Qty: 1.00 ***1***

Reference:

Approvals: Process Plan: _____ Date: _____

Tooling: _____ Date: _____

Setup Start ***NS1***

QC: _____ Date: _____

SPC (Y/N): _____ Date: _____

Stop ***NS2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

190

190

HandFinish

Hand Finishing

Pressure Wash per QSI005 4.3

0.00

1 76 12-7-25

200

200

Powdercoat

Powder Coating

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

Memo

8:30 00

START TIME:

OVEN TEMPERATURE:

FINISH TIME:

320 0F

9:00

MT
1X ✓ 12/07/25

210

210

QC

Quality Control

QC3- Inspect Part Finish

0.00

Memo

Inspect for foreign object per QSI 024

0.00

1R# ✓ ⑧ 12/07/25

W/O:		WORK ORDER CHANGES							
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Required Date: 03/07/2012 Req'd Qty: 1.00 *1*

N900040100

Setup Start *NS1*

Stop *NS2*

Reference:

Cust Item ID:

Customer:

Approvals: Process Plan:

Date: Tooling:

Date:

Run Start *NR1*

QC: Date: SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

230

230

HandFinish

Hand Finishing

HandFinishing

0.00

Memo

0.00

1-Install inserts as per dwg D2750

2-Inspect for Foreign Objects

3-Spray inside of tube with "LPS-3"

batch: NIA

4-Install blade fitting D3488-042, wearshoes and ground handling hardware as
per dwg D2750

SIKA FLEX 241

BATCH: 122130

EXP DATE: 14/07

5-assemble o'ring to plug as per dwg D3492 and apply o'ring lube
A/R 55-o'ring lube batch: 110348

6-Coat all exposed fasteners with "LPS Procyon"
batch: 145916

12A 8 SP 12/07/25

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NS1

Revision ID:

Item Name: Skidtube RH

Stop

NS2

Start Date: 19/06/2012 Start Qty: 1.00

1

Cust Item ID:

Required Date: 03/07/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan:

Date: _____

Tooling:

Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N):

Date: _____

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

240

QC5- Inspect part completeness to step on W/O

0.00

240

QC

Quality Control

250

Pick Kit

0.00

250

Packaging

Packaging

260

QC4- 100% Inspect kits for completeness

0.00

260

QC

Quality Control

DAS
16
8-69
17/07/12

17/07/12

1X

SP
12-726

DAS
16
8-69
17/07/12

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Approvals: Process Plan:

Date:

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

270

270

Packaging

Packaging

0.00

Packaging

Memo

0.00

Package as per PPP D350-636-012

MJ

12/17/2012

280

280

QC

Quality Control

QC21- Final Inspection - Work Order Release

0.00

Memo

0.00

12/17/2012

MJ 12/07/12

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Picklist Print

June-19-12 7:59:09 AM

Page 1

Work Order ID: 85938

85938
D350-636-012

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 19/06/2012

Required Date: 03/07/2012

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:I02.09.25Rearranged procedure stepsKJ

IPP Rev:J 06-03-29 As per Rev D EC

IPP Rev:K 06-07-13 As per dsi9343 EC

IPP Rev:L 07-07-28 Added SS Wearplates(Rev E) JLM Verified By:EC

IPP Rev:M 08-04-22 update steps 4.13 DD verified by:EC

IPP Rev:N 08-09-23 revF as per dwg DD verified by:ec IPP Rev:O

10.06.22 revise seq110 DD verf:EC IPP Rev:P 10.10.01 as

per IIN revH DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2600-3-BENT		Manufactured	No			110	Each	23.0000	1	1		BB 12/07/17	

D2600-3-BENT

Extrusion Bent

Location	Loc Qty	Loc Code
LG 86330	23	
66875	7	
73253	1	
75021	1	
75022	1	
75023	1	
81330	4	
83305	1	
83442	7	

D2744

Manufactured No

110 Each 68.0000

1 1

D2744

Cap

**

BB 12/07/17

Location	Loc Qty	Loc Code
LG002	68	
62715	1	
83412	29	
85506	38	

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Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 19/06/2012

Required Date: 03/07/2012

Start Qty: 1.00

Required Qty: 1.00

D2739

Manufactured No

160

Each

11.0000

1

1

**

DC 12/07/18

⑥

D2739

350 I Beam

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
LG	11	
72155	1	
81508	1	
83447	3	
83448	4	
83548	2	

D2743

Manufactured No

160

Each

256.0000

8

8

**

3E12/07/23
B85459 8***D2743***

Crossbolt Spacer

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
LG	182	
81965	55	
83262	127	
LG001	74	
67766	4	
68251	3	
73403	64	
74445	1	
79517	2	

D3490-3

Manufactured No

160

Each

102.0000

4

4

**

3E12/07/23

D3490-3

Cross Bolt Spacer

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
LG001	102	
83313	42	
85420	60	

4

W/O:		WORK ORDER CHANGES					
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D350-636-012

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 19/06/2012

Required Date: 03/07/2012

Start Qty: 1.00

Required Qty: 1.00

D3490-1

Manufactured No

160 Each 111.0000 4 4

**

D3490-1

Cross Bolt Spacer

8/12/07/23

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
LG	88	
81976	2	
85419	86	4
LG001	23	
62450	2	
74875	4	
77042	3	
83269	14	

D3631-1

Manufactured No

230 Each 331.0000 8 8

**

D3631-1

Washer

8 8/07/25

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FG	316	
81874	2	
83588✓	314	
ST072	15	
68062	2	
75548	13	

D3791-1

Manufactured No

230 Each 29.0000 1 1

**

D3791-1

Wearplate

1 1/07/25

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP002	29	
62239	2	
83392	15	
83902✓	12	

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NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Page 4

Work Order ID: 85938

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

85938
D350-636-012

Start Date: 19/06/2012

Start Qty: 1.00

Required Date: 03/07/2012

Required Qty: 1.00

D3793-3

Manufactured No

230

Each

28.0000

1

1

**

1

(DP)

12/07/25

D3793-3

Wearshoe

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP001	28	
83394 ✓	16	
83901	12	

MS21043-6

Purchased No

230

Each

610.0000

4

4

**

4

(DP)

12/07/25

MS21043-6

NUT

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FG	20	
103693	20	
ST301	590	
117887	2	
118384 ✓	88	
120308	500	

D3794-1

Manufactured No

230

Each

26.0000

1

1

**

1

(DP)

12/07/25

D3794-1

Gasket

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP	6	
82167	6	
FP002	20	
83395 ✓	20	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Work Order ID: 85938

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

85938
D350-636-012

Start Date: 19/06/2012

Required Date: 03/07/2012

Start Qty: 1.00

Required Qty: 1.00

NAS1611-010

Purchased

No

230

Each

164.0000

8

8

**

8

BB

12/07/12

NAS1611-010

O-RING

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP001 122151✓	164	
110915	14	
117460	8	
118077	1	
118612	3	
119438	47	
121259	2	
121584	39	
121723	50	

D2741

D2741

Blade, 350 Skidtube

Manufactured

No

250

Each

47.0000

1

1

**

SP 12-7-2012

✓

1✓

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
ST	-10	
ST466	57	
71856	1	
79516	7	
83135	39	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Work Order ID: 85938

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

85938
D350-636-012

Start Date: 19/06/2012

Required Date: 03/07/2012

Start Qty: 1.00

Required Qty: 1.00

NAS1515H3L

Purchased

No

230

Each

138.0000

4

4

**

4

(P)

12/07/25

***NAS1515H3L ***
WASHER

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FG 122451 ✓	40	
102472	40	
ST277	98	
118686	3	
119438	1	
120360	11	
121243	2	
121556	81	

NAS1611-013

Purchased

No

230

Each

341.0000

8

8

**

8

(P)

12/07/25

NAS1611-013
O-RING

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP001	341	
116582	5	
117291	2	
117887	53	
119623	36	
121584	15	
121825 ✓	188	
121826	42	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Work Order ID: 85938

85938
D350-636-012

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 19/06/2012

Required Date: 03/07/2012

Start Qty: 1.00

Required Qty: 1.00

AN3C6A

Purchased

No

230

Each

359.0000

4

4

**

4

(P)

12/07/25

AN3C6A

BOLT

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

FP001	1	
-------	---	--

111982	1	
--------	---	--

ST351	358	
-------	-----	--

111982	2	
--------	---	--

116419	23	
--------	----	--

116549	2	
--------	---	--

116704	12	
--------	----	--

117619	10	
--------	----	--

117688	1	
--------	---	--

117872	5	
--------	---	--

118422	13	
--------	----	--

119449	21	
--------	----	--

120423	3	
--------	---	--

120693	126	
--------	-----	--

121682 ✓	140	
----------	-----	--

NAS1149C0832R

Purchased

No

230

Each

256.0000

1

1

**

(P)

12/07/25

NAS1149C0832R

WASHER

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

ST297	256	
-------	-----	--

114915 ✓	256	
----------	-----	--

D3536-25

Manufactured

No

230

Each

28.0000

1

1

**

(P)

12/07/25

D3536-25

Gasket

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
-----------------	----------------	-----------------

FP	28	
----	----	--

83391	12	
-------	----	--

83900 ✓	16	
---------	----	--

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Work Order ID: 85938

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Page 8

85938
D350-636-012

Start Date: 19/06/2012

Required Date: 03/07/2012

Start Qty: 1.00

Required Qty: 1.00

D3794-3

Manufactured No 230 Each 23.0000 1 1

**

1

(SP)

12/07/25

D3794-3

Gasket

Location	Loc Qty	Loc Code
----------	---------	----------

FP	21	
83396 ✓	21	

FP002	2	
74530	2	

AN3C5A

Purchased No 230 Each 1,228.000 34 34

**

34

(SP)

12/07/25

AN3C5A

Bolt

Location	Loc Qty	Loc Code
----------	---------	----------

FP001	122141 ✓	7
115835	7	

ST350	1221	
116419	28	

117343	13	
117764	7	

117872	2	
119749	23	

120423	28	
121068	12	

121255	500	
121444	108	

121708	500	
--------	-----	--

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Work Order ID: 85938

85938
D350-636-012

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 19/06/2012

Required Date: 03/07/2012

Start Qty: 1.00

Required Qty: 1.00

D3537-1

Manufactured No 230 Each 65.0000 3 3 **

D3537-1

Wearpad

Location	Loc Qty	Loc Code
86238✓	65	
FP002 85457✓	6	
81362	1	
83254	3	
83255	49	
83256	6	
84091		

1 3 (P) 12/07/25

D3535-25

Manufactured No 230 Each 34.0000 1 1 **

D3535-25

Wearshoe

Location	Loc Qty	Loc Code
FP001	34	
62233	1	
81357	1	
82156	2	
83387	17	
83899✓	13	

1 (P) 12/07/25

D3492-3

Manufactured No 230 Each 163.0000 8 8 **

D3492-3

Plug

Location	Loc Qty	Loc Code
FP-A 85461✓	163	
81967	5	
83099	36	
83529	122	

8 (P) 12/07/25

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Work Order ID: 85938

85938
D350-636-012

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 19/06/2012

Required Date: 03/07/2012

Start Qty: 1.00

Required Qty: 1.00

AN960C10L ~~R~~ NAS1149C0332 ✓ Purchased

No 122063 ✓ 230 Each 21.0000 38 38

** 38 (2D) 12/07/25

*AN960C10L *

washer

Location	Loc Qty	Loc Code
----------	---------	----------

ST	21	
----	----	--

107534	21	
--------	----	--

D3488-042 Manufactured No

230 Each 0.0000 1 1

** 1 (2D) 12/07/25

D3488-042

Blade Fitting Assembly, RH

ALS4-1032-225 Purchased No

230 Each 663.0000 38 38

** 38 (2D) 12/07/25

AL S4-1032-225

Insert

Location	Loc Qty	Loc Code
----------	---------	----------

ST281	122290 ✓	640
-------	----------	-----

108696	146	
--------	-----	--

110768	62	
--------	----	--

118386	55	
--------	----	--

118966	68	
--------	----	--

121269	309	
--------	-----	--

ST282	23	
-------	----	--

120410	10	
--------	----	--

120451	13	
--------	----	--

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Page 11

Work Order ID: 85938**Parent Item:** D350-636-012**Parent Item Name:** Skidtube RH***85938***
D350-636-012**Start Date:** 19/06/2012**Required Date:** 03/07/2012**Start Qty:** 1.00**Required Qty:** 1.00

D3492-1

Manufactured No

230

Each

253.0000

8

8

**

8

D3492-1

Plug

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP002	238	
69531	8	
74444	2	
76235	4	
83259 ✓	224	
FP-A	15	
83098	15	

D3793-1

Manufactured No

230

Each

28.0000

1

1

**

1

D3793-1

Wearshoe

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP001	28	
82171	2	
83393 ✓	13	
83903 ✓	13	

AN8C35A

Purchased No

230

Each

66.0000

1

1

**

1

AN8C35A

BOLT

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP002	65	
115960	1	
118286	14	
121275 ✓	50	
ST346	1	
114442	0	
115188	0	
115960	1	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Page 12

Work Order ID: 85938

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

85938
D350-636-012

Start Date: 19/06/2012

Required Date: 03/07/2012

Start Qty: 1.00

Required Qty: 1.00

MS21083C8

Purchased

No

230

Each

67.0000

1

1

**

1

(P)

12/07/25

MS21083C8
NUT

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
304	62	
121185 ✓	27	
121349	35	
FP002	1	
115884	1	
ST303	4	
115884	0	
118077	1	
119309	2	
119638	1	

D2745

Manufactured

No

230

Each

306.0000

8

8

**

8

(P)

12/07/25

D2745

Bushing

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FP	206	
79518 ✓	6	
85416 ✓	200	
FP001	100	
69529	1	
76142	1	
83260	98	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Page 13

Work Order ID: 85938

85938
D350-636-012

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 19/06/2012

Required Date: 03/07/2012

Start Qty: 1.00

Required Qty: 1.00

AN6C44A

Purchased

No

230

Each

78.0000

4

4

**

4

②

12/07/25

AN6C44A

BOLT

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
FG 122204✓	2	
103964	2	
ST343	76	
121013	11	
121167	8	
121440	50	
121689	7	

D3532-1

Manufactured

No

250

Each

30.0000

2

2

**

SP

D3532-1

Spacer

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
ST053	30	
82041	5	
83319	25	

MS21083C8

Purchased

No

250

Each

67.0000

2

2

**

M 122141 SP

12-7-26.

MS21083C8

NUT

<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>
304	62	
121185	27	
121349	35	
FP002	1	
115884	1	
ST303	4	
115884	0	
118077	1	
119309	2	
119638	1	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

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Work Order ID: 85938

85938
D350-636-012

Parent Item: D350-636-012

Parent Item Name: Skidtube RH

Start Date: 19/06/2012

Required Date: 03/07/2012

Start Qty: 1.00

Required Qty: 1.00

NAS1149D0863J

Purchased

No

250

Each

239.0000

2

2

**

NAS1149D0863J

WASHER

Location	Loc Qty	Loc Code
ST298	239	
118078	34	
119307	5	
120308	100	
121556	100	

D3493-1

Manufactured

No

250

Each

115.0000

2

2

**

D3493-1

Washer

Location	Loc Qty	Loc Code
ST050	115	
77573	1	
82023	14	
83097	100	

AN8C21A

Purchased

No

250

Each

45.0000

2

2

**

AN8C21A

BOLT

Location	Loc Qty	Loc Code
ST343	45	
118758	3	
121275	42	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

QTY -041	QTY -042	QTY -043	QTY -044	PART NUMBER	DESCRIPTION
X				D2750-041	350 SKIDTUBE ASSEMBLY, LH
	X			D2750-042	350 SKIDTUBE ASSEMBLY RH
		X		D2750-043	350 SKIDTUBE ASSEMBLY, LH
			X	D2750-044	350 SKIDTUBE ASSEMBLY RH
1	1	1	1	D2739	WEB
8	8	8	8	D2743	SPACER
1	1	1	1	D2744	CAP
8	8	8	8	D2745	BUSHING
1				D2750-1	SKIDTUBE WELDMENT LH
	1			D2750-2	SKIDTUBE WELDMENT RH
		1		D2750-3	SKIDTUBE WELDMENT, LH
			1	D2750-4	SKIDTUBE WELDMENT, RH
1	1			D3488-041	BLADE FITTING, LH
	1		1	D3488-042	BLADE FITTING, RH
4	4	4	4	D3490-1	SPACER
4	4			D3490-3	SPACER
	4	4	4	D3490-5	SPACER
8	8	8	8	D3492-041	PLUG ASSEMBLY
8	8			D3492-043	PLUG ASSEMBLY
	8	8	8	D3492-045	PLUG ASSEMBLY
1	1	1	1	D3535-25	WEARSHOE
1	1	1	1	D3536-25	GASKET
3	3	3	3	D3537-1	WEARPAD
8	8	8	8	D3631-1	WASHER
1	1	1	1	D3791-1	WEARPLATE
1	1	1	1	D3793-1	WEARSHOE
1	1	1	1	D3793-3	WEARSHOE
1	1	1	1	D3794-1	GASKET
1	1	1	1	D3794-3	GASKET
38	38	38	38	ALS4-1032-225	INSERT (OR ALS7-1032-225, AKS4-1032-225, AELS-1032-225)
34	34	34	34	AN3C5A	BOLT
4	4	4	4	AN3C6A	BOLT
4	4	4	4	AN6C44A	BOLT
1	1	1	1	AN8C35A	BOLT
38	38	38	38	AN960C10L	WASHER
1	1	1	1	AN960C816L	WASHER
4	4	4	4	MS21043-6	NUT
1	1	1	1	MS21083C8	NUT
4	4	4	4	NAS1515H3L	WASHER

GENERAL NOTES:

- 1) MATERIAL: MAKE D2750-1/-2/-3/-4 FROM D2600-3 EXTRUSION (INITIAL LENGTH = 120.0).
- 2) FINISH:
ACID ETCH, ALONDE ASSEMBLY PER DART QSI 005 4.1 PRIOR TO INSTALLING D2739 WEB.
POWDER COAT WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED TO 1.0 ABOVE SKIDTUBE CENTER-LINE PER DART 005 4.4 (OPTIONAL).
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: D2750-041/-042/-043/-044 = 26.5 LBS
- 8) WELD PER DART QSI 004
- 9) INSTALL ALS4-1032-225 INSERTS AFTER FINISH AS INDICATED. DRILL 'F' SIZE HOLES (.00.297) FOR WEARSHOE INSERTS
- 10) FINAL CONFIGURATION SHOULD HAVE THE FOLLOWING MINIMUM MECHANICAL PROPERTIES:
MINIMUM YIELD TENSILE STRENGTH = 35 KSI
MINIMUM ULTIMATE TENSILE STRENGTH = 38 KSI
- 11) SPRAY INSIDE OF TUBE WITH A COAT OF LPS LABORATORIES "LPS-3" AFTER FINISH AND AFTER INSTALLATION OF INSERTS.
COAT ALL EXPOSED FASTENERS WITH LPS LABORATORIES "LPS PROCYON" AFTER FINAL ASSEMBLY. CLEAN EXCESS OFF
POWDER COATING WITH MEK DEGREASER.
- 12) SPACER AND PLUG INSTALLED SAME AS SECTION AJ-AJ EXCEPT HORIZONTAL 
- 13) SPACER AND PLUG INSTALLED SAME AS SECTION AP-AP EXCEPT HORIZONTAL 

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WITHOUT NOTICE
WORK ORDER

NO. ~~05938~~ MLC
12/06/19

RELEASED
6/27/22 MLC

F	INCORPORATE DS1 9413, QTY (3) D3537-1 WAS QTY (5) (ZN C8-1), D3791-1/3 REPLACES D3535-13-35 (ZN C8-1); D3794-1/3 REPLACES D3536-13-35 (ZN B8-1); ADD D3791-1 (ZN C8-1) TO WEARPLATE HOLE UNDER FWD/RTF SADDLE REMOVED (8 PL). WEARSHOE HARDWARE QTY UPDATED (ZN B8-1); D3488-041/-042 HARDWARE UPDATED (ZN C1-8, 9, 10, 11); ADD NOTE 12 AND 13 (ZN A6-1); REASON: REF. NCR 08-043	PH	08.07.16
E	CHANGE TO STAINLESS STEEL WEARPLATES; ADD RUBBER GASKETS, CHANGE INSERTS; ADD D3631-1, REMOVE QTY (3) NAS1515H3L, REMOVE QTY (10) NAS1515H8L, REMOVE D2741, QTY (2) AN960C816, REMOVE QTY (2) MS21083C8	CB	07.05.17
D	ADD HOLES AND SPACERS FOR APICAL FLOATS; INCORPORATE DEO 9138R157	PH	06.01.05
C	ADD D2750-3/D2750-4, INCORPORATE D2738 AND D2740	CP	98.11.18
B	CHANGE MS24694-S293 TO ANB-16A	CP	98.09.01
A	NEW ISSUE	DS	98.04.16
REV.	DESCRIPTION	BY	DATE
DESIGN		DART AEROSPACE USA, INC.	
DRAWN		PORT HADLOCK, WA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D2750	SHEET 1 OF 11
APPROVED		TITLE	SCALE
DE APPR.		350 SKIDTUBE ASSEMBLY	NTS
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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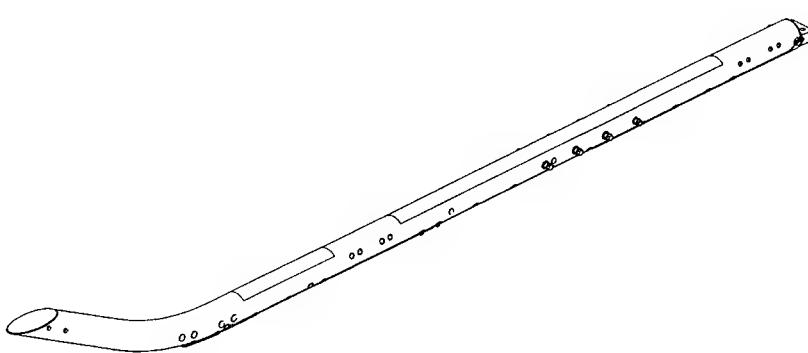
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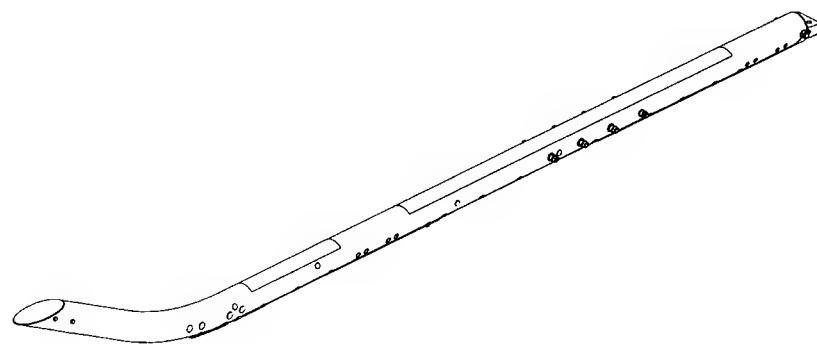
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D2750-041 350 SKIDTUBE ASSEMBLY, LH



D2750-042 350 SKIDTUBE ASSEMBLY, RH

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9.22.11

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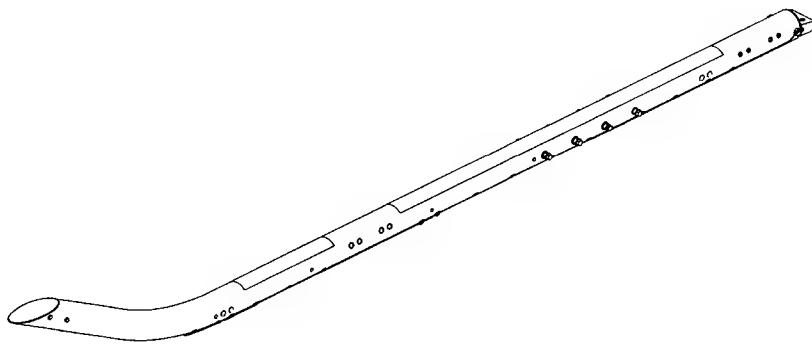
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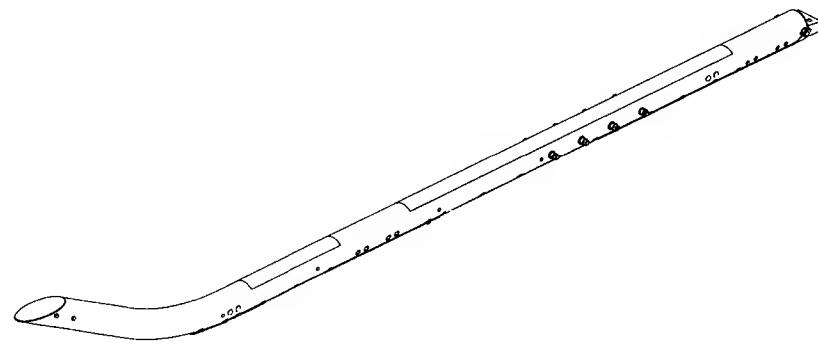
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D2750-043 350 SKIDTUBE ASSEMBLY, LH



D2750-044 350 SKIDTUBE ASSEMBLY, RH

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64-9-22/10

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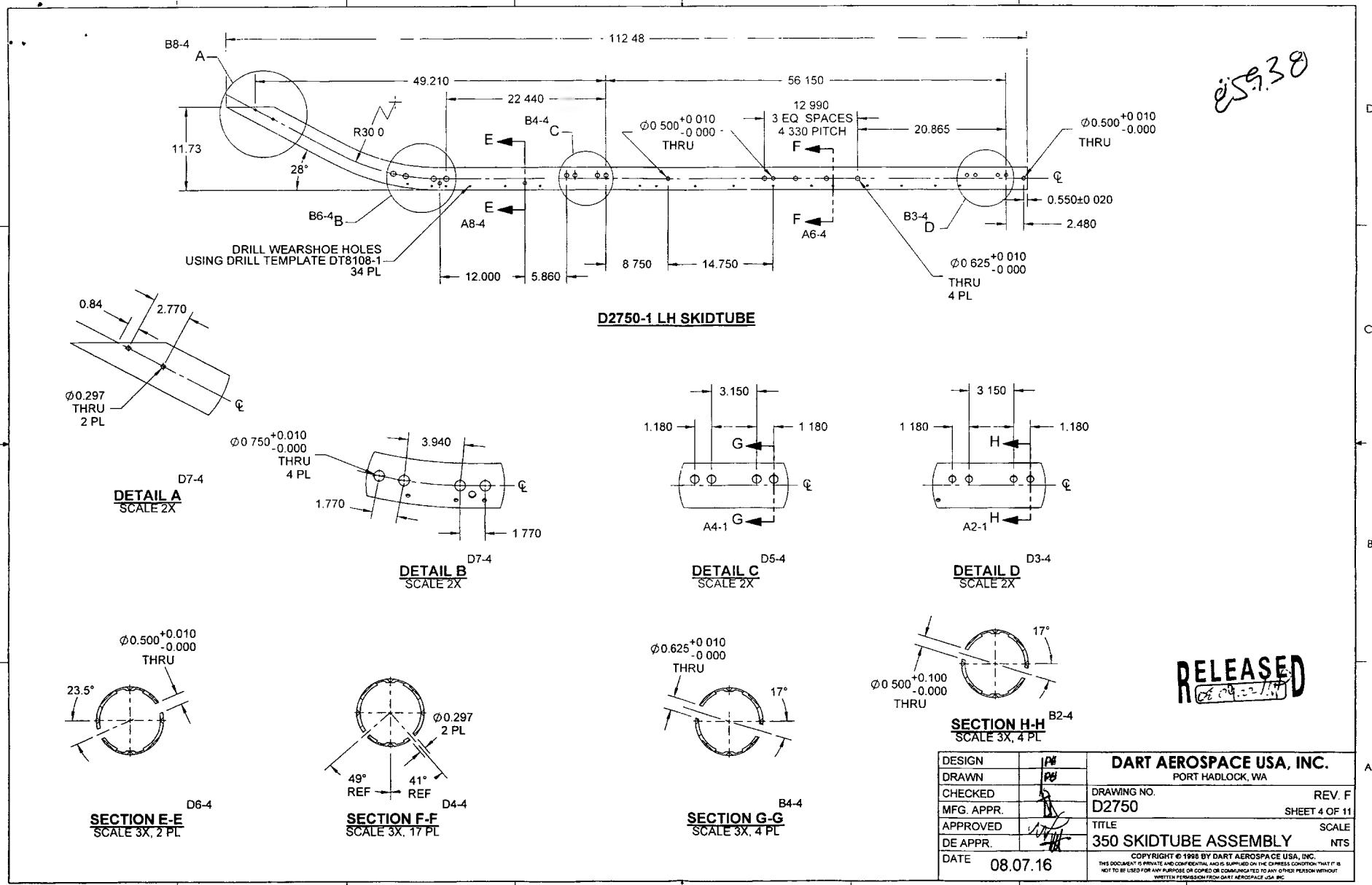
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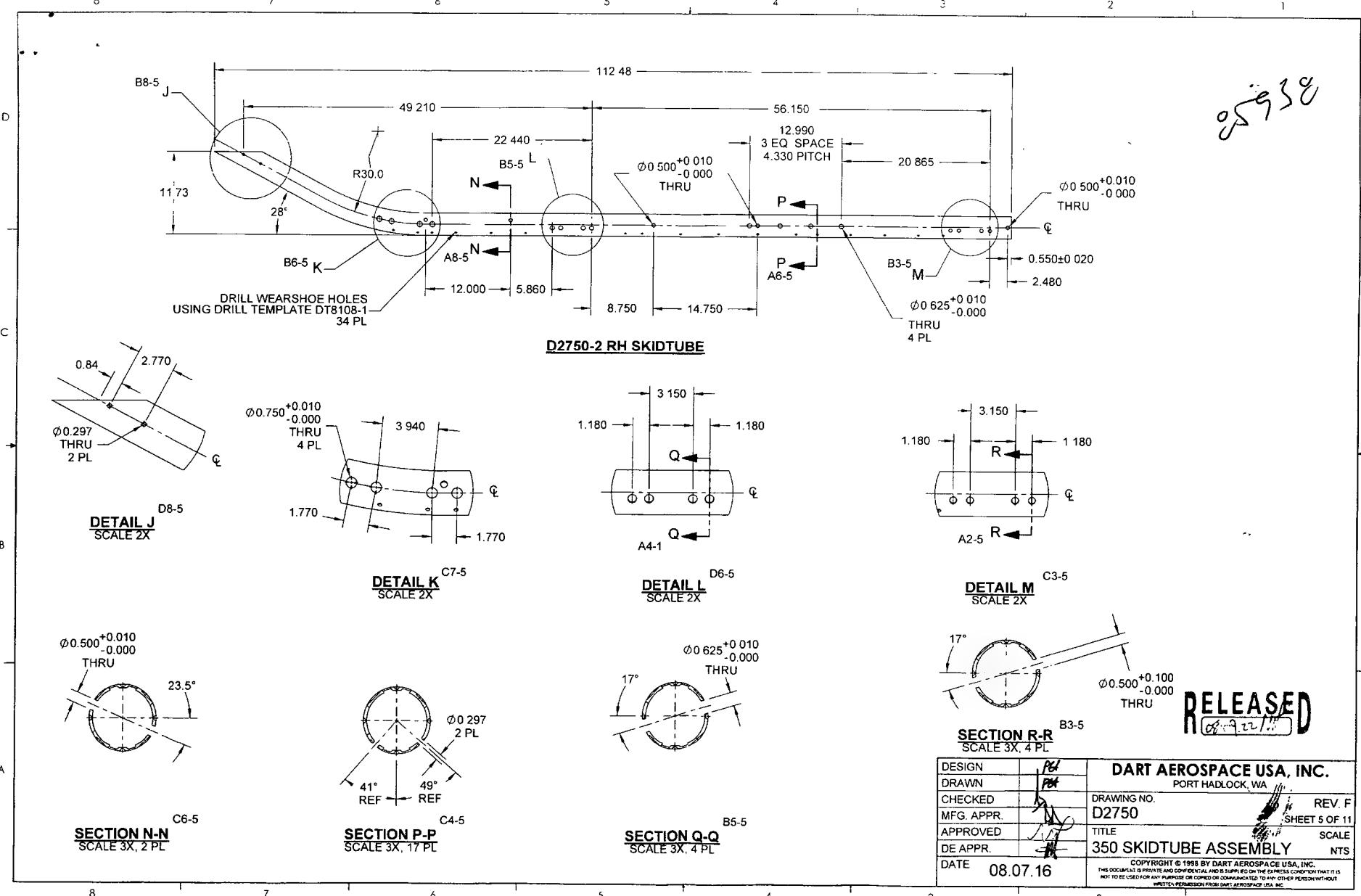
	DART AEROSPACE USA, INC. PORT HADLOCK, WA		
DRAWING NO. D2750		REV. F SHEET 4 OF 11	
R. 		TITLE 350 SKIDTUBE ASSEMBLY	
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5
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12/17/07

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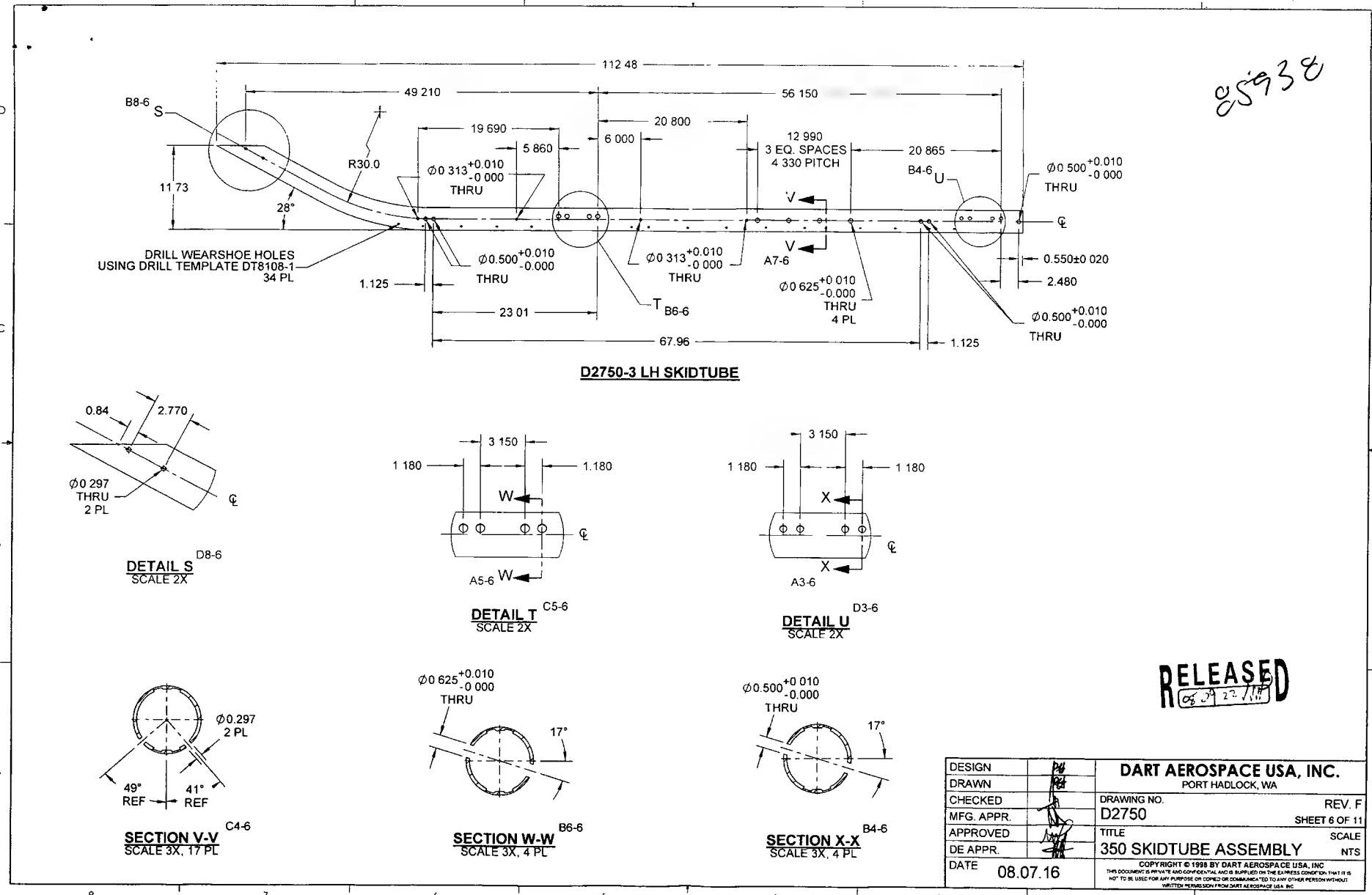
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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85938

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MFG. APPR.		D2750	SHEET 6 OF 11	
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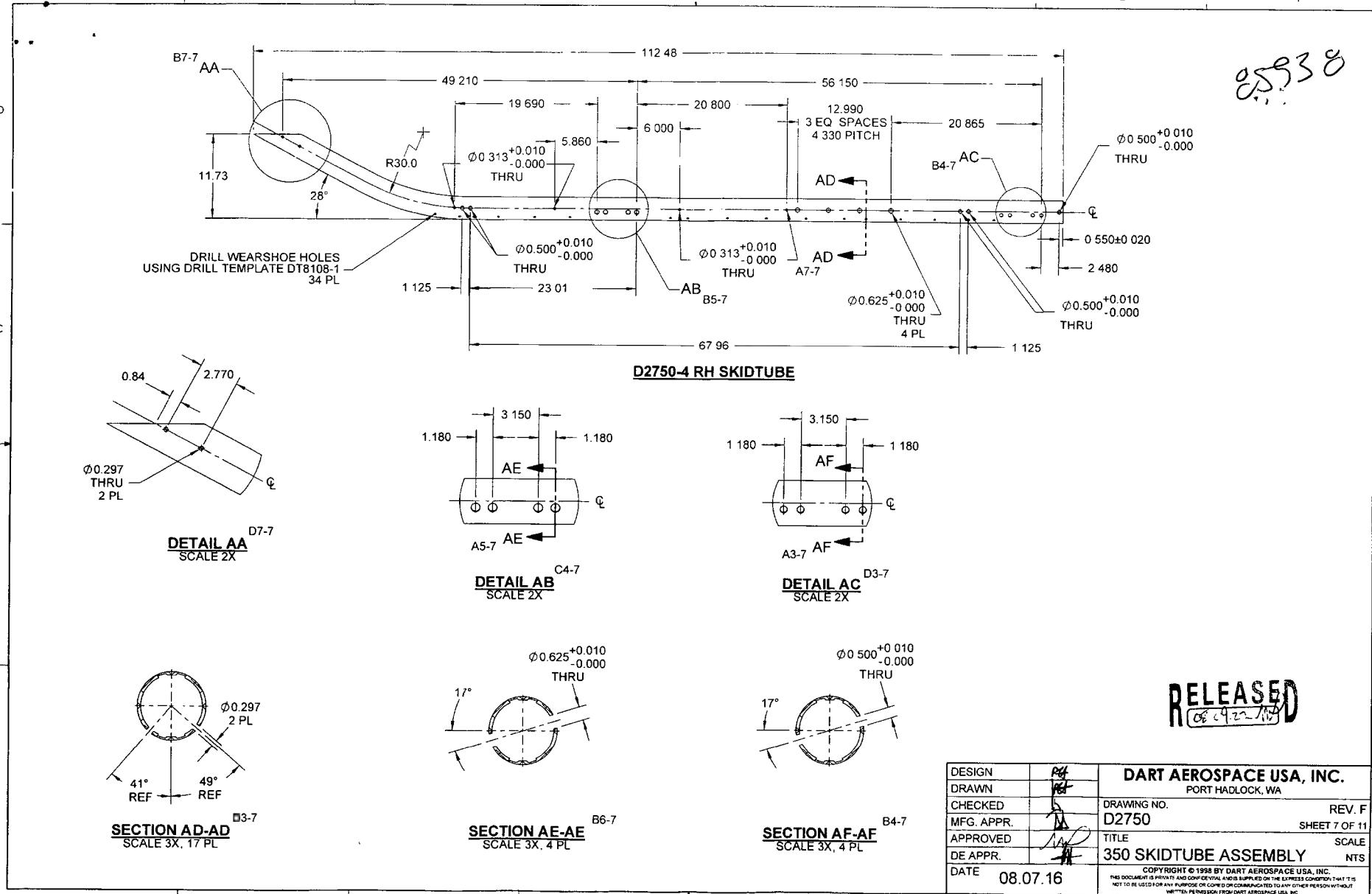
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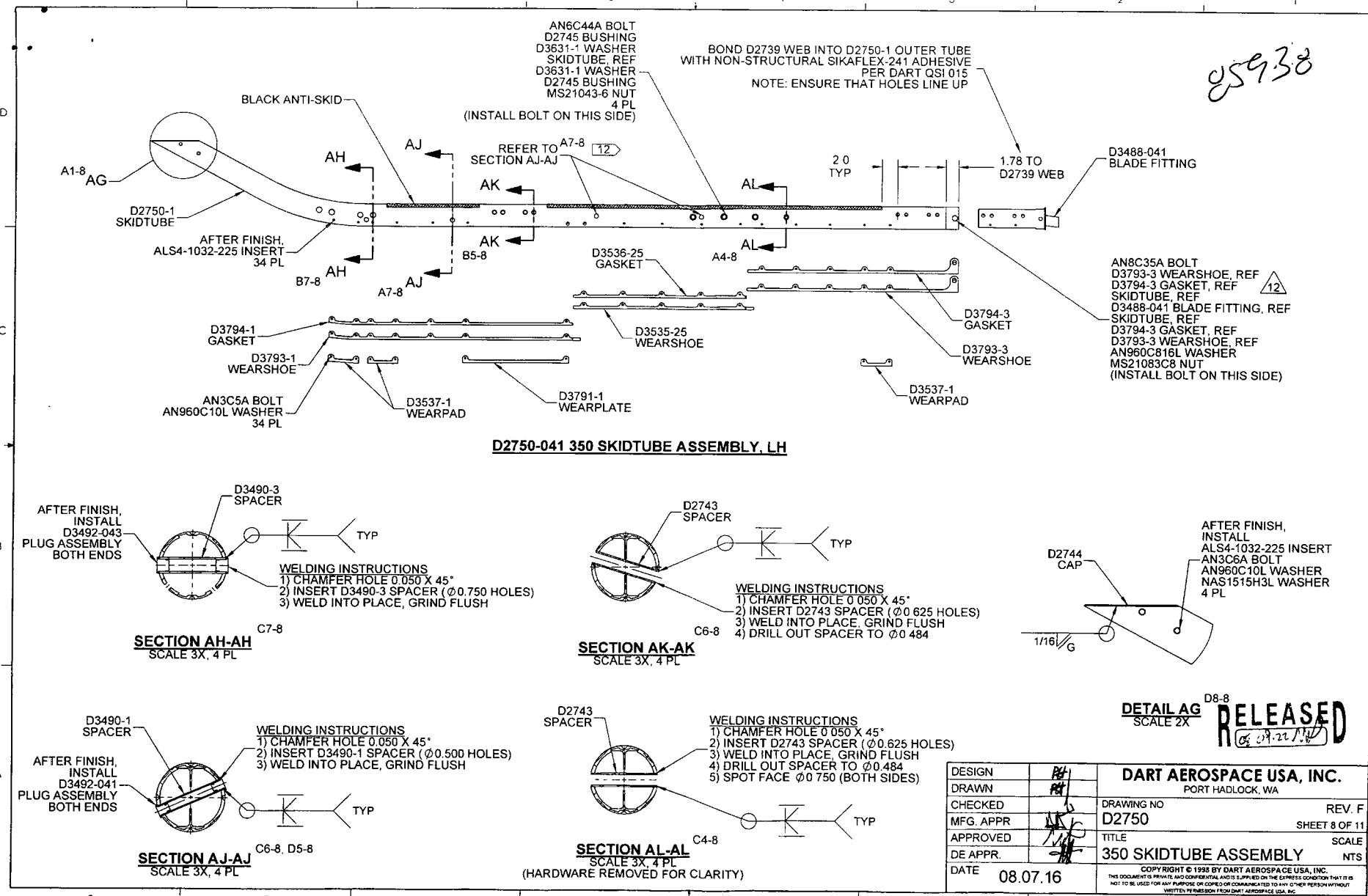
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DATE 08.07.16		SHEET 7 OF 11
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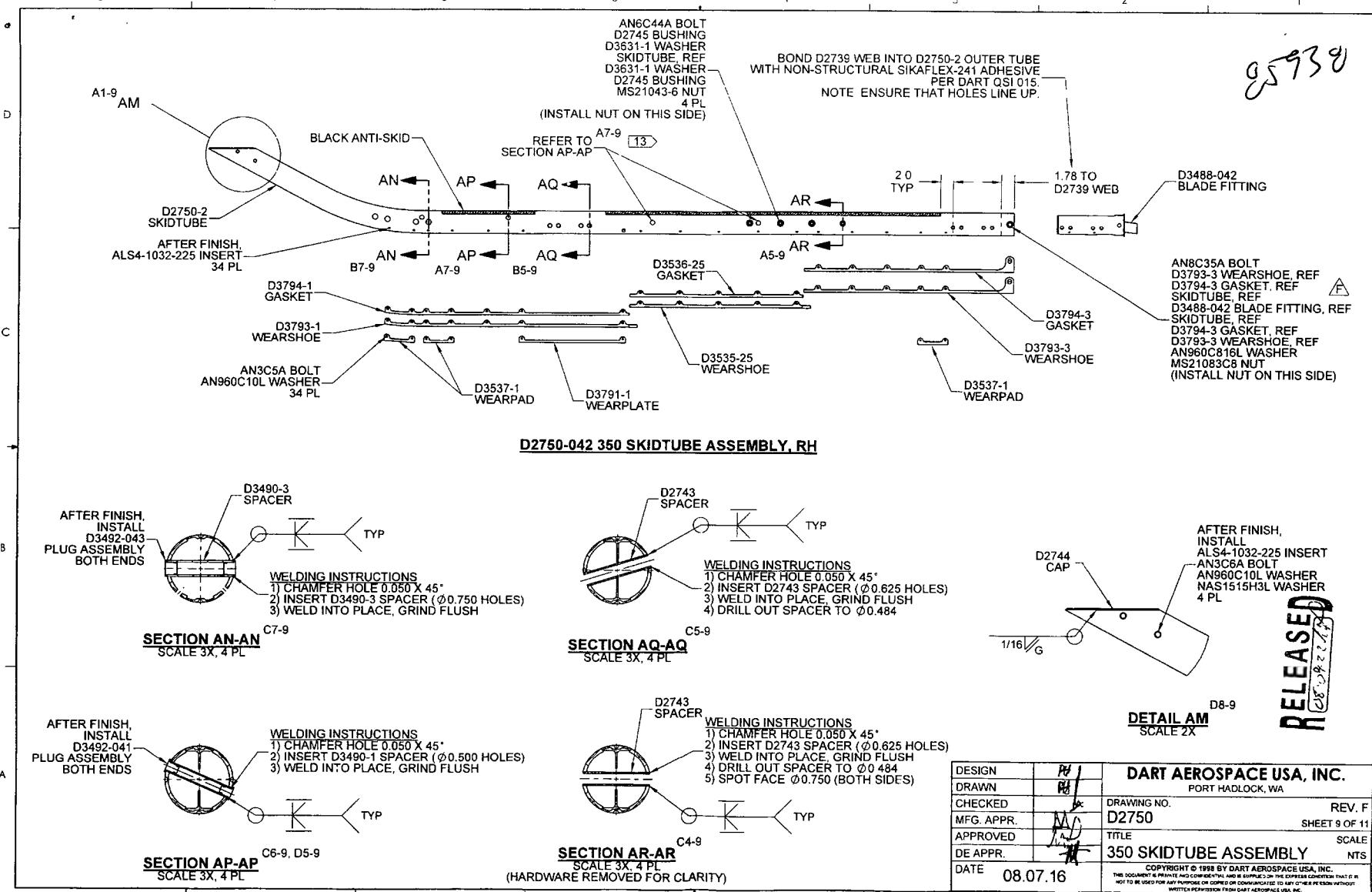
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95938

ANBC3000 BOLT
D3793-3 WEARSHOE, REF
D3794-3 GASKET, REF
SKIDTUBE, REF
D3488-042 BLADE FITTING, REF
SKIDTUBE, REF
D3794-3 GASKET, REF
D3793-3 WEARSHOE, REF
AN960C816L WASHER
MS21083C8 NUT
(INSTALL NUT ON THIS SIDE)

AFTER FINISH,
INSTALL
ALS4-1032-225 INSERT
AN3C6A BOLT
AN960C10L WASHER
NAS1515H2L WASHER

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DETAIL AM

DESIGN	PA	DART AEROSPACE USA, INC.		
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CHECKED	JK	DRAWING NO.	REV. F	
MFG. APPR.	MD	D2750	SHEET 9 OF 11	
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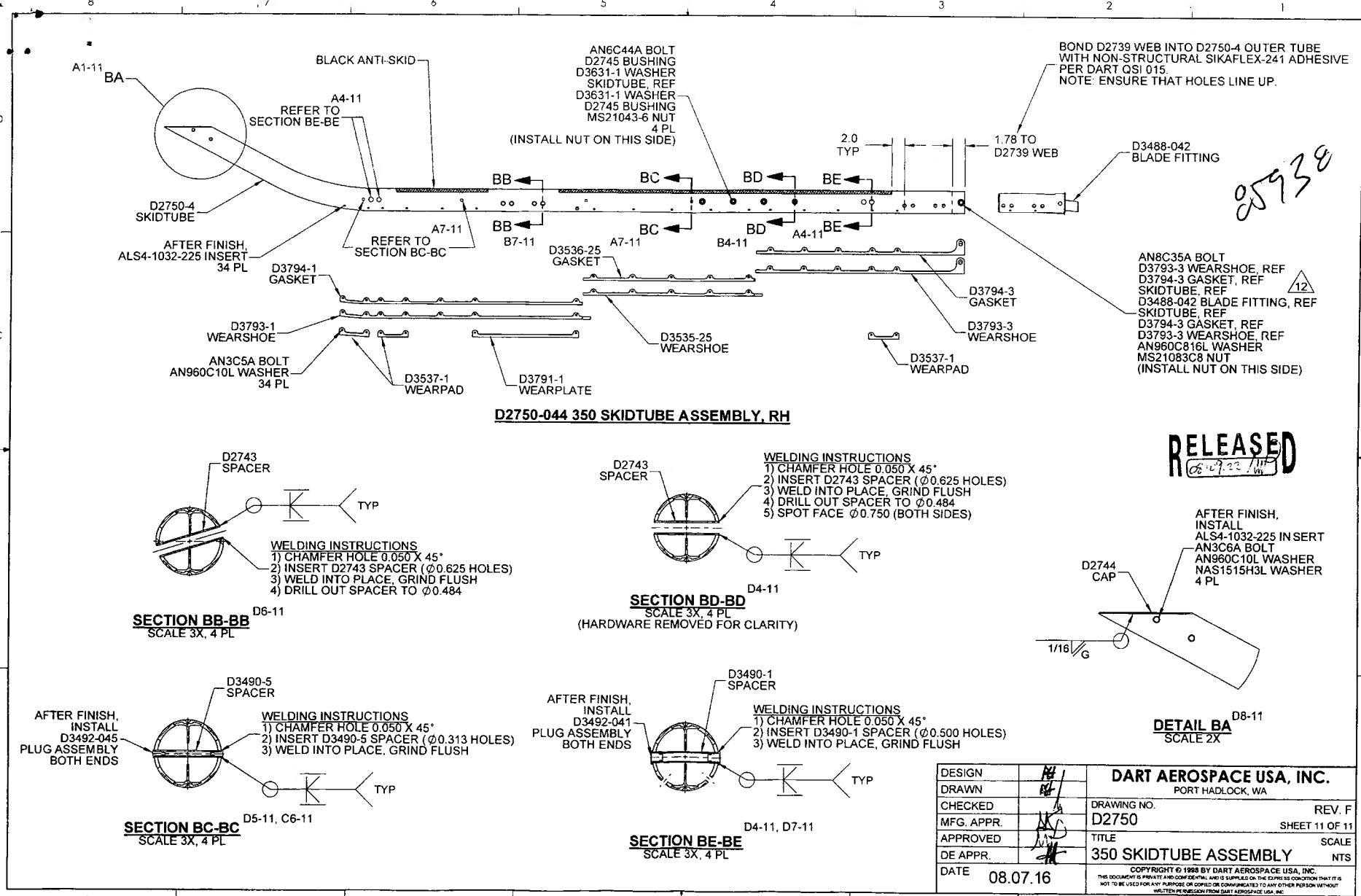
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NOTE: Date & initial all entries

NO. 298

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Barclay Elliott
Job #: 87012
Part #: A350-636-014
Description: Skid tube
Welding Process: Tig Mig
Base materiel: Alumium
Current: AC DC

TEST REQUIREMENTS AND RESULTS

Visual:	pass <input checked="" type="checkbox"/>	fail <input type="checkbox"/>
Incomplete Penetration:	pass <input checked="" type="checkbox"/>	fail <input type="checkbox"/>
Incomplete Fusion:	pass <input checked="" type="checkbox"/>	fail <input type="checkbox"/>
Cracks:	pass <input checked="" type="checkbox"/>	fail <input type="checkbox"/>
Overlap (cold lap)	pass <input checked="" type="checkbox"/>	fail <input type="checkbox"/>
Undercut:	pass <input checked="" type="checkbox"/>	fail <input type="checkbox"/>
Pin holes:	pass <input checked="" type="checkbox"/>	fail <input type="checkbox"/>
Porosity (surface):	pass <input checked="" type="checkbox"/>	fail <input type="checkbox"/>
Coloration:	pass <input checked="" type="checkbox"/>	fail <input type="checkbox"/>
Burn through:	pass <input checked="" type="checkbox"/>	fail <input type="checkbox"/>

Qualifier David Nelsel Date of Test Coupon 12.07.23

Welder Barclay Elliott Date of Test Coupon 12-07-23

The above named individual is qualified in accordance with AWS D17.1.2001 to weld